WHAT IS CLAIMED IS:

1.   A communication system capable of avoiding congestion in transmission of moving image data, comprising:

at least one receiving terminal;

a moving image delivery device for delivering moving image data to said at least one receiving terminal;

a moving image conversion device including at least one moving image conversion means for converting, in accordance with conversion parameters, the moving image data sent from said moving image delivery device, a conversion parameter setting means for determining the conversion parameters, and a monitored result receiving means; and

at least one packet switching node including at least one data storage means for preliminarily storing the moving image data from said moving image conversion device to be sent to said at least one receiving terminal, a data amount monitor means for monitoring an amount of the moving image data stored in said at least one data storage means to judge that the monitored data amount reaches a first threshold, and a monitored result sending means for sending a congestion preview information to said moving image conversion device when said data amount monitor means judges that the monitored data amount reaches the first threshold,

said monitored result receiving means receiving the congestion preview information from said monitored result

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sending means, said conversion parameter setting means
determining the conversion parameters so that said moving
image conversion means converts the moving image data sent
from said moving image delivery device into a moving image
data with a smaller coding bit rate smaller.

2.   The communication system as claimed in claim 1, wherein
said data amount monitor means monitors an amount of the
moving image data stored in said at least one data storage
means to judge that the monitored data amount reaches a second
threshold which is smaller than said first threshold, wherein
said monitored result sending means sends a congestion
avoidance information to said moving image conversion device
when said data amount monitor means judges that the monitored
data amount reaches the second threshold, wherein said
monitored result receiving means receives the congestion
avoidance information from said monitored result sending means,
and wherein said conversion parameter setting means determines
the conversion parameters so that said moving image conversion
means converts the moving image data sent from said moving
image delivery device into a moving image data with a larger
coding bit rate.

3.   The communication system as claimed in claim 2, wherein
said data amount monitor means judges that it is the

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congestion preview state until the monitored data amount
reaches the second threshold after the monitored data amount
reaches the first threshold, and that it is the congestion
avoidance state until the monitored data amount reaches the
first threshold after the monitored data amount reaches the
second threshold.

4.   The communication system as claimed in claim 2, wherein
said monitored result sending means sends the congestion
preview information or the congestion avoidance information at
a constant interval.

5.   The communication system as claimed in claim 1, wherein
said data amount monitor means calculates a new coding bit
rate when said data amount monitor means judges that the
monitored data amount reaches the first threshold, wherein
said monitored result sending means sends the calculated new
coding bit rate in addition to the congestion preview
information, wherein said monitored result receiving means
receives the calculated new coding bit rate in addition to the
congestion preview information, and wherein said conversion
parameter setting means determines the conversion parameters
so that said moving image conversion means converts the moving
image data sent from said moving image delivery device
depending upon the calculated new coding bit rate.

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6.   The communication system as claimed in claim 5, wherein said data amount monitor means calculates a new coding bit rate enabling to avoid congestion state after a lapse of a predetermined time, depending upon a change in the stored data amount during a predetermined period of time.

7.   The communication system as claimed in claim 6, wherein said data amount monitor means calculates a low coding bit rate so as to decrease a difference between an estimate data amount after a lapse of the predetermined time and a second threshold which is smaller than said first threshold, when the change in the stored data amount during a predetermined period of time is positive change.

8.   The communication system as claimed in claim 6, wherein said data amount monitor means calculates a high coding bit rate so as to increase a difference between an estimate data amount after a lapse of the predetermined time and an amount of data now stored, when the change in the stored data amount during a predetermined period of time is negative change.

9.   The communication system as claimed in claim 1, wherein said data amount monitor means monitors, instead of the amount of data stored in said at least one data storage means, a data

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amount which is smoothed in accordance with the amount of data
stored in said at least one data storage means.

10.   The communication system as claimed in claim 1, wherein
said at least one receiving terminal includes a plurality of
receiving terminals, and said conversion parameter setting
means includes a plurality of conversion parameter setting
means for the respective receiving terminals, wherein said at
least one data storage means includes a plurality of data
storage means for preliminarily storing the moving image data
to be sent to the respective receiving terminals, said data
amount monitor means monitors the stored data for the
respective receiving terminals, and said monitored result
sending means sends the congestion preview information or the
congestion avoidance information for the respective receiving
terminals, and wherein said monitored result receiving means
receives the congestion preview information or the congestion
avoidance information for the respective receiving terminals,
and said conversion parameter setting means determines the
conversion parameters for the respective receiving terminals.

11.   A communication method capable of avoiding congestion
in transmission of moving image data, comprising the steps of:
       converting moving image data to be delivered to at
least one receiving terminal, in accordance with conversion

parameters;

preliminarily storing the converted moving image data
to be sent to said at least one receiving terminal;

monitoring an amount of the stored moving image data to
judge that the monitored data amount reaches a first
threshold;

sending a congestion preview information when it is
judge that the monitored data amount reaches the first
threshold;

receiving the sent congestion preview information; and

determining the conversion parameters so that said
converting step converts the moving image data into a moving
image data with a smaller coding bit rate.

12.   The communication method as claimed in claim 11,
wherein said monitoring step includes monitoring an amount of
the stored moving image data to judge that the monitored data
amount reaches a second threshold which is smaller than said
first threshold, wherein said sending step include sending a
congestion avoidance information when it is judged that the
monitored data amount reaches the second threshold, wherein
said receiving step includes receiving the congestion
avoidance information, and wherein said determining step
includes determining the conversion parameters so that said
converting step converts the sent moving image data into a

moving image data with a larger coding bit rate.

13.   The communication method as claimed in claim 12,
wherein said monitoring step includes judging that it is the
congestion preview state until the monitored data amount
reaches the second threshold after the monitored data amount
reaches the first threshold, and judging that it is the
congestion avoidance state until the monitored data amount
reaches the first threshold after the monitored data amount
reaches the second threshold.

14.   The communication method as claimed in claim 12,
wherein said sending step includes sending the congestion
preview information or the congestion avoidance information at
a constant interval.

15.   The communication method as claimed in claim 11,
wherein said monitoring step includes calculating a new coding
bit rate when it is judged that the monitored data amount
reaches the first threshold, wherein said sending step
includes sending the calculated new coding bit rate in
addition to the congestion preview information, wherein said
receiving step include receiving the calculated new coding bit
rate in addition to the congestion preview information, and
wherein said determining step includes determining the

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conversion parameters so that said converting step converts the moving image data depending upon the calculated new coding bit rate.

16.   The communication method as claimed in claim 15, wherein said monitoring step includes calculating a new coding bit rate enabling to avoid congestion state after a lapse of a predetermined time, depending upon a change in the stored data amount during a predetermined period of time.

17.   The communication method as claimed in claim 16, wherein said monitoring step includes calculating a low coding bit rate so as to decrease a difference between an estimate data amount after a lapse of the predetermined time and a second threshold which is smaller than said first threshold, when the change in the stored data amount during a predetermined period of time is positive change.

18.   The communication method as claimed in claim 16, wherein said monitoring step includes calculating a high coding bit rate so as to increase a difference between an estimate data amount after a lapse of the predetermined time and an amount of data now stored, when the change in the stored data amount during a predetermined period of time is negative change.

19.   The communication method as claimed in claim 16, wherein said monitoring step includes monitoring, instead of the stored data amount, a data amount which is smoothed in accordance with the stored data amount.

20.   The communication method as claimed in claim 11, wherein said converting step includes converting the moving image data to be sent to a plurality of receiving terminals, said storing step includes preliminarily storing the converted moving image data for the respective receiving terminals, said monitoring step includes monitoring the stored data for the respective receiving terminals, and said sending step include sending the congestion preview information or the congestion avoidance information for the respective receiving terminals, and wherein said receiving step includes receiving the congestion preview information or the congestion avoidance information for the respective receiving terminals, and said determining step includes determining a plurality of conversion parameters for the respective receiving terminals.